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Photocurable compsn. contg. epoxy resin, carboxylic acid anhydride - and  
cpds. liberating Lewis acid on irradiation and by heating

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Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 56053129	A	19810512	JP 79129068	A	19791005	198126 B
JP 87004052	B	19870128				198707

Priority Applications (No Type Date): JP 79129068 A 19791005

Abstract (Basic): JP 56053129 A

Compsn. (100 wt.pts.) comprises (A) epoxy resin contg. 2 epoxy gps. and (B) a polyfunctional carboxylic acid anhydride copolymerisable with the resin (e.g. (tetrahydro)phthalic, hexahydrophthalic, maleic, methyl tetrahydrophthalic, (dodeceny1) succinic, methyl succinic, citroconic, trimellitic and pyromellitic anhydrides (0.8 mols per mol of epoxy group in the resin) is blended with (C) a cpd. liberating a Lewis acid on irradiation with light or radioactive rays (e.g. diazonium salts of Lewis acids of formula (I)). (MX<sub>n</sub> is a complexed anion, S is a halo (e.g. F and Cl) M is a transition metal (e.g. Sb, Fe, Sn, Bi, Al, Ga, In, Ti, Zr, Sc, V, Cr, Mn or Co) or a metalloid (e.g. B, P and S) (e.g. BF<sub>4</sub>(-), PF<sub>6</sub>(-), AsF<sub>6</sub>(-), SbF<sub>6</sub>(-), FeCl<sub>4</sub>(-), SbCl<sub>6</sub>(-) and BiCl<sub>5</sub>(--)) and Y is NO<sub>2</sub>, OH, halo, N-morpholino, alkyl, alkoxy, amino, aryl(amino) or arylmercapto and m is an integer, or a diaryliodonium Lewis acid of formula (II). R<sub>1</sub> is R<sub>2</sub> is Y, or a Lewis acid triphenyliodonium salt of formula (III) (Q<sub>1</sub>) is S, Se, Si and Sn, or a triphenyl-alkyl, -alkoxy or -aryl onium salt of Lewis acids of formula (IV) Q<sub>2</sub> is P, N or Sb and R<sub>3</sub> is an alkyl, alkoxy or aryl) (0.05-5 wt.pts.) and (D) a cpd. liberating a Lewis acid by heating it (e.g. BF<sub>3</sub>/amine complexes) (0.05-5 wt.pts.).

The epoxy resin compsns. are curable by irradiation with light or radioactive rays.

Title Terms: PHOTOCURABLE; COMPOSITION; CONTAIN; EPOXY; RESIN; CARBOXYLIC; ACID; ANHYDRIDE; COMPOUND; LIBERATING; LEWIS; ACID; IRRADIATE; HEAT

Derwent Class: A21; A60; A89; E12; G06

International Patent Class (Additional): C08G-059/18; C08L-063/00;

H01B-003/40

File Segment: CPI